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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,014	06/07/2001	Jamie Edelkind		8119

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EXAMINER	
ABRAHAM, ESAW T	
ART UNIT	**PAPER NUMBER**
2133	

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/876,014	EDELKIND, JAMIE	
	Examiner	Art Unit	
	Esaw T. Abraham	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims **1-18** are presented for examination.

Drawings

2. The drawing of the disclosure is objected to:

Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

Abstract

3. The **abstract** of the disclosure is objected to:

a) Because the abstract should be written in one paragraph.

Applicant is reminded of the proper content of an abstract of the disclosure. A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art. Where applicable, the abstract should include the following:

(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Correction is required. See MPEP § 608.01(b).

REJECTIONS NOT BASED ON PRIOR ART

Claim Rejections - 35 USC § 112, 1st paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the ail to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims **1 and 10** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

a) Claim 1 recites, "an error correction means, a database means, and a comparison means". **Nowhere** does the Applicant define or teach, "an error correction means, a database means, and a comparison means". It is not clear where in the claimed system comprises an ECC means, database means, and a comparison means. It is not clear how the said elements are connected to each other. The interconnections of the

elements within the system can neither be visualized in the drawings nor can be clearly understood from the claimed language for proper examination purposes.

b) Claim 10 recites, "an error correction protocol". **Nowhere** does the Applicant define or teach or define "an error correction protocol (Note: a protocol signature is not an error correction protocol).

Claim Rejections - 35 USC § 112, 2nd paragraph

The following is a quotation of the second paragraph of 35 U. S. C 112

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims **1, 2 and 10** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1 recites, "an error correction means, a database means, and a comparison means". It is not clear where in the claimed system comprises an ECC means, database means, and a comparison means. It is not clear how the said elements are connected to each other. The interconnections of the elements within the system can neither be visualized in the drawings nor can be clearly understood from the claimed language for proper examination purposes.

b) Claim 2 recites the limitation "the error recorded" in line 1. There is insufficient antecedent basis for this limitation in the claim.

c) Claim 10 recites, "an error correction protocol". The Applicant does not define or teach "an error correction protocol (Note: a protocol signature is not an error correction protocol).

d) Claims 11-18 are at least rejected for their dependencies, directly or indirectly, on the rejected claim 10 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere* CO., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims **1-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al. (U.S. PN: 6,279,135) (hereinafter "Nguyen").

As per claims 1 and 10:

Nguyen teaches or discloses error-correction code (ECC) systems, and more particularly to syndrome generation for error correction during digital-versatile disk (DVD) playback (see col. 1, lines 14-17). Nguyen in figure 5 teaches that data read from optical disk (18) is written to SRAM buffer (60), once a row of an ECC block has been written (recorded), row syndrome generator (70) reads the data and ECC bytes in the row, and generates row-syndrome bytes

and these row syndrome bytes can be written back to SRAM buffer (60), or put into a temporary latch and sent to row ECC calculator (72) and compares the row syndrome bytes to zero to detect errors in the row, when an error is detected, row ECC calculator (72) locates the error within the row and determines the error value and the error value is exclusive-OR'ed with the data in the row to correct the error. Row ECC calculator 72 performs a read-modify-write cycle to read the incorrect data from the row in SRAM buffer 60, XOR the error value to generate the corrected data, and then write the corrected data back into SRAM buffer 60. Further, Nguyen teaches that once row corrections are made for all rows in the ECC block, column syndromes are generated and column corrections made (see col. 3, lines 37-67). **Although,** Nguyen in figure 1 teaches that a DVD data block with error correction for both rows and columns and data from DVD disk (18) is read sequentially and stored in a block of data and further as the data is read from DVD disk (18), it begins filling row 0 with data bytes 1, 2, 3 . . until 182 bytes have been read and error-correction information (ECC) for row 0 is contained in the last ten bytes of the row, data from DVD disk (18) then begins filling the second row (row 1) with data bytes 173, 174, etc. until a second row of 172 data bytes and 10 ECC bytes has been transferred with additional ECC bytes for the second row are contained in the last 10 bytes of row 1 (see col. 1, lines 37-46). **It is noted however**, Nguyen did not specifically teach a database means for receiving and storing the record of ECC as recited in claim 1. **One of ordinary** skill in the art at the time of the invention would have found it obvious to substitute the data read from DVD disk (18), it begins filling row 0 with data bytes

and error-correction information (ECC) for the first row (row 0), data from DVD disk (18) then begins filling the second row (row 1) with data bytes 173, 174, etc. until a second row of 172 data bytes and 10 ECC bytes has been transferred with additional ECC bytes for the second row. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because a data base means for storing the record of ECC for correcting errors are well known futures of optical medium systems dealing with correcting errors.

As per claims 2, 3 and 9:

The claims are at least rejected for their dependencies, directly or indirectly, on the rejected claim 1 above. They are therefore rejected as set forth above. In addition, Nguyen teaches that once errors (error patterns) in the rows identified by the row syndromes are corrected, column syndromes are generated and the bytes received from the DVD disk for the current row are accumulated into intermediate row syndromes then received bytes are accumulated for the row until all of the row's bytes have been received and accumulated. The final accumulated row syndromes are written to the embedded memory buffer for later row error-correction and the row syndromes are later sent from the embedded memory buffer to an error corrector that detects, locates, and corrects any errors (error patterns) in the rows (see abstract).

As per claims 4-8:

The claims are at least rejected for their dependencies, directly or indirectly, on the rejected claim 1 above. They are therefore rejected as set forth above. In addition, Nguyen teaches error-correction code (ECC) systems, and more particularly to syndrome generation for error correction during digital-versatile disk (DVD) playback (see col. 1, lines 14-17). Further, Nguyen teaches a block in the syndrome generator is read from an optical disk to the buffer memory, wherein syndromes are generated for a DVD optical disk or a CD-ROM optical disk, wherein when the optical disk is a CD-ROM optical disk, the column-syndrome generator receives data words from diagonals for Q-parity syndrome generation (see claim 14).

As per claims 11, 12 and 18:

The claims are at least rejected for their dependencies, directly or indirectly, on the rejected claim 1 above. They are therefore rejected as set forth above. In addition, Nguyen teaches that once errors (error patterns) in the rows identified by the row syndromes are corrected, column syndromes are generated and the bytes received from the DVD disk for the current row are accumulated into intermediate row syndromes then received bytes are accumulated for the row until all of the row's bytes have been received and accumulated. The final accumulated row syndromes are written to the embedded memory buffer for later row error-correction and the row syndromes are later sent from the embedded memory buffer to an error corrector that detects, locates, and corrects any errors (error patterns) in the rows (see abstract).

As per claims 13-17:

The claims are at least rejected for their dependencies, directly or indirectly, on the rejected claim 1 above. They are therefore rejected as set forth above. In addition, Nguyen teaches error-correction code (ECC) systems, and more particularly to syndrome generation for error correction during digital-versatile disk (DVD) playback (see col. 1, lines 14-17). Further, Nguyen teaches a block in the syndrome generator is read from an optical disk to the buffer memory, wherein syndromes are generated for a DVD optical disk or a CD-ROM optical disk, wherein when the optical disk is a CD-ROM optical disk, the column-syndrome generator receives data words from diagonals for Q-parity syndrome generation (see claim 14).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US PN: 6,119,250 Nishimura et al

US PN: 6,048,090 Zook, Christopher P.

US PN: 5,841,749 Sako, Yoichiro

US PN: 6,427,219 Yang

Status of Claims in the Application

The following is a summary of the treatment and status of all claims in the application as recommended by M.P.E.P. 707.07(i):

Claims rejected in the Application

Per the instant office action, claims 1-18 have received a first action on the merits and are subject of a **first action non-final**.

Direction of Future Correspondences

Any inquiry concerning this communication or earlier communication from the examine should be directed to Esaw Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8-5.

Important Note

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for after final communications.

Information regarding the status of an Application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Esaw Abraham

Art unit: 2133

GUY LAMARRE
PRIMARY EXAMINER